



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 09/973,089 | 10/10/2001 | Marie B. Connett-Porceddu | 2411-111 | 4802 |

6449 7590 01/14/2003

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800
WASHINGTON, DC 20005

EXAMINER

BAUM, STUART F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1638

DATE MAILED: 01/14/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,089

Applicant(s)

CONNETT-PORCEDDU ET AL.

Examiner

Stuart F. Baum

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8,10,11,14-17,19,20 and 22-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,10,11,14-17,19,20 and 22-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 11/4/02 has been entered.

Claims 1-3, 5-8, 10-11, 14-17, 19-20, and 22-55 are pending

Claims 4, 9, 12, 13, 18, and 21 have been canceled.

Claims 1, 3, 5-7, 10, 14-16, 19, 22, 24-25, 28, 31, 33, 34, 37, 41, 43, 46-47, 52, and 53 have been amended.

Claims 1-3, 5-8, 10-11, 14-17, 19-20, and 22-55 are examined in the present Office Action.

2. Rejections and objections not set forth below are withdrawn.

3. The text of those sections of Title 35, U.S. Code not included in this office action can be found in a prior office action.

4. Claims 44-55 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicant has interpreted the Written Description rejection to be directed against their method of regenerating genetically modified pine plants and transformed plants. They believe the only way to describe the method is with words, structures, figures, diagrams and formulas.

Art Unit: 1638

Applicants contend that because they are not claiming any DNA, a description of such is not required.

The Written Description rejection was not directed against the method of regenerating genetically modified pine plants, but against the transgenic embryogenic pine cultures and transformed pine plants. For a plant to be transformed, it must contain an exogenous or introduced piece of DNA that is not found in an untransformed plant. Applicants have not described the genetics or phenotype of the transformed plants or embryogenic cultures that they are claiming and as such have not demonstrated that they are in possession of transformed embryogenic cultures or transformed pine plants.

5. Claims 1-3, 22-23, 28, 31-32, 37, 40, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Wenck et al (1999, Plant Molecular Biology 39(3):407-416). This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicant recites the protocol that Wenck et al use, specifically stating that Wenck et al did not use ABA in the selection medium (page 8, 3rd full paragraph). Applicants argue that ABA was not used in the selection medium nor did they include any agent which regulates differentiation of embryos from embryogenic cells. They conclude by stating that because an agent that regulates differentiation was not included in their medium, they cannot anticipate the claimed invention.

The Examiner disagrees with the Applicants. The Applicants have claimed a method for regenerating genetically modified plants comprising an agent that regulates differentiation

Art Unit: 1638

selected from the group consisting of: ABA, an osmoticum, a gelling agent, and combinations thereof (amended claim 1). Wenck et al use Phytigel, which is a gelling agent and the 471 medium which they use comprises nutrients which act as an osmoticum. Applicant fails to mention that the procedure of Wenck et al comprise these other constituents. Even in the original claim 1, Applicants claim the previously mentioned method comprising an agent that regulates differentiation, which can be interpreted to mean any chemical or ingredient that is a constituent of the medium. Given the broad claim language recited by Applicants, Wenck et al anticipate the claimed invention as stated in the previous Office Action.

6. Claims 1-23, 28, 29, 31, 32, 37, 38, 40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenck et al (1999, Plant Molecular Biology 39(3):407-416) taken with Rutter et al (1998, U.S. Patent 5,731,204). This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicants dispute the use of the Wenck et al reference as a primary reference in a 103 rejection for the reasons stated above. They continue by contending that because the Wenck et al reference doesn't teach selection of transformed pine using an agent that regulates differentiation, and because the Rutter et al reference does not disclose selection of transgenic embryogenic cells, consequently, the Rutter et al reference does not cure the deficiency of Wenck et al and the combination of these references does not render the claimed invention obvious. Applicants conclude by stating that even if there was any motivation to combine the

references, then it would only yield a process in which ABA and PEG is used to differentiate somatic embryos from transformed cells.

The Examiner has stated above the reasons Wenck et al anticipate the claimed invention. Given that Wenck et al does anticipate the claimed invention, and given the teachings of Rutter et al that are not disputed by Applicant, even to the point that Applicant admits that the combined references would make obvious the use of ABA and PEG to be used to differentiate somatic embryos. Given that Wenck et al does teach selecting transformed pine using an agent that regulates differentiation for the reasons stated above and given the acknowledgment of Applicant that Rutter et al teach the use of ABA and PEG, then it would be obvious to combine the teachings of the two references as stated in the previous Office Action.

7. Claims 1-3, 22-28, 31-37 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenck et al (1999, Plant Molecular Biology 39(3):407-416) taken with Levee et al (1999, Molecular Breeding 5:429-440). This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicants dispute the use of the Wenck et al reference as a primary reference in a 103 rejection for the reasons stated above. They continue by stating that the Levee et al reference does not teach an agent that regulates differentiation of embryos from embryogenic cells in a selection medium but that the Levee et al reference only teaches a support membrane. Applicants continue by stating that if there was any motivation to combine, then it would yield a process in which a support membrane is used in a process using antibiotics and ABA to

differentiate transformed cells. Applicants conclude by stating that there would be no suggestion of the use of ABA in a selection medium as set forth in the present claims.

The Examiner has stated above the reasons Wenck et al anticipate the claimed invention. Given that Wenck et al does teach the use of an agent that regulates differentiation of embryos from embryogenic cells, and given that the only reason Applicants dispute the rejection is because Wenck et al does not teach an agent that regulates differentiation of embryos from embryogenic cells, it appears that the rejection is valid given the acknowledgments of Applicant that Levee et al teach a support membrane and ABA for use in a process to differentiate transformed cells and the teachings of Wenck et al.

8. Claims 1-3, 22-28, 30-37 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenck et al (1999, Plant Molecular Biology 39(3):407-416) taken with Levee et al (1999, Molecular Breeding 5:429-440) and Rutter et al (1998, U.S. Patent 5,731,204). This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicants dispute the use of the Wenck et al reference as a primary reference in a 103 rejection for the reasons stated above and that Levee et al and Rutter et al do not disclose the missing elements of the claimed invention. Applicants assert that Levee et al and Rutter et al do not suggest the use of an agent that regulates differentiation of embryos from embryogenic cells in a selection medium.

The Examiner has stated above the reasons Wenck et al anticipate the claimed invention. The only reason Applicants object to the 103 rejection is based upon their belief that Wenck et al

Art Unit: 1638

do not disclose the claimed invention. Given that Wenck et al do anticipate the broadly claimed invention as stated above, then the rejection is valid based upon Applicants arguments.

9. Claim 1 and all subsequent dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicant did not specifically address the indefinite phrase "regulates differentiation" in either their arguments or in the amended claims. The rejection is maintained.

10. Claims 1-8, 10-11, 13-17, 19-20, and 22-55 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 12-14, 15, 17, 18, 21, 23, 25, 30, 34, 45, 47, 51, 57, and 63-81 of copending Application No. 09/973088. This rejection is maintained for the reasons of record set forth in the Official action mailed 7/3/2002. Applicant's arguments have been fully considered but they are not persuasive.

Applicant contends that the claims of the present invention are directed to the selection of transgenic embryogenic pine cells using an agent that regulates differentiation of embryos from embryogenic cells. They contend that this invention is not described nor claimed in the '088 application.

Art Unit: 1638

The Examiner disagrees. Given the broad definition of “an agent that regulates differentiation” including ABA, an osmoticum, a gelling agent or combinations thereof, the claims of the ‘088 application read on the claims of the present application.

11. No claims are allowed.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart Baum whose telephone number is (703) 305-6997. The examiner can normally be reached on Monday-Friday 8:30AM – 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the

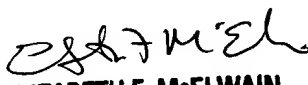
Art Unit: 1638

organization where this application or proceeding is assigned are (703) 305-3014 or (703) 305-3014 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the legal analyst, Tiffiany Tabb, whose telephone number is (703) 605-1238.

Stuart F. Baum Ph.D.

January 13, 2003


ELIZABETH F. McELWAIN
PRIMARY EXAMINER
GROUP 1600